

Executive Summary

This document presents the Performance Standard Verification Plan (PSVP) for Operable Unit 3 (OU3) at Hill Air Force Base (HAFB). The PSVP establishes a monitoring program for OU3 post-Record of Decision (ROD) operations, including a long-term plan to reach site closeout. The PSVP defines long-term goals, types of decisions to be made, data analysis procedures, and reporting formats. The PSVP also defines a standardized assessment and monitoring protocol to provide HAFB with an improved, documented understanding and agreement with the regulatory agencies and the public. The documenting of procedures and decision criteria provides continuity during personnel turnover, lowers costs by ensuring only necessary data are collected, and optimizes sampling frequencies to meet specific information goals.

The *Final Record of Decision for Operable Unit 3 (IRP¹ Sites ST04, WP05, WP06, ST18, SD23, SD34) (ROD)* for HAFB produced by Montgomery Watson (MW) in September, 1995 (MW, 1995), requires a performance and compliance sampling program, referred to in this document as the PSVP. The PSVP includes both compliance and performance monitoring to determine if Remedial Action Objectives (RAOs) are being met. These monitoring requirements are meant to ensure that selected remedies achieve appropriate protection of human health and the environment, comply with regulatory requirements, and continue to pursue attainment of remediation goals. The long-term RAOs for OU3 are:

- To protect human health and the environment by minimizing the potential for exposure to contaminated media.
- To prevent migration of contaminated media.

Media-specific RAOs, established in the *Final Feasibility Study for Operable Unit 3 (IRP Sites ST04, WP05, WP06, ST18, SD23, SD34), (FS)* produced by MW in March, 1995 (MW, 1995a) are:

- To protect human health.
- To protect the environment.
- To address potential future unacceptable risk scenarios.

The various components of the remedial action were evaluated to determine which media-specific RAOs were associated with the remedial actions. This data is summarized in Table ES-1, which can be found at the end of this section.

The PSVP outlines the RAOs, identifies data needs, and determines whether OU3 remedial actions are “operating properly and successfully.” The phrase “operating properly and successfully” involves two separate concepts. A remedial action is operating “properly” if it is operating as designed. The system is operating “successfully” if its operation will achieve

¹ Installation Restoration Program

the cleanup levels or performance goals delineated in the *ROD*. Additionally, to be successful, “that remedy must be protective of human health and the environment.”

An evaluation will be conducted to determine whether the OU3 remedial actions are operating properly and successfully. Results of the evaluation will be documented in the OU3 Performance Standard Verification Report (PSVR). The first PSVR will be completed after the scheduled review of the OU3 Remedial Action operations in 2006. The frequency of the first review period will allow sufficient data to be collected during OU3 operations to provide confidence that data collected represents true contaminant concentrations at OU3. As part of the PSVR, any needed changes to the monitoring program, data assessment methods, data collection frequency, review frequency, etc. will be recommended, and the PSVP will be modified as appropriate. Any changes to the PSVP found to be necessary before the PSVR is implemented will be annotated by letter.

OU3 is a soils-only operable unit consisting of the following source areas: Refueling Vehicle Maintenance Facility (RVMF) (Buildings 511 and 514); the Sodium Hydroxide Tank Site; the Industrial Wastewater Treatment Plant (IWTP) Sludge Drying Beds; Berman Pond; Pond 1; and Pond 3. Based on the findings and conclusions of the *Final Remedial Investigation Report for Operable Unit 3 (IRP Sites ST04, WP05, WP06, ST18, SD23, SD34)*, (RI) produced by James M. Montgomery Consulting Engineers Inc. (JMM) in April 1992 (JMM, 1992), the *FS*, the *Final Phase II Remedial Investigation Report for Operable Unit 3 (IRP Sites ST04, WP05, WP06, ST18, SD23, SD34)*, (Phase II RI) produced by MW in March 1995 (MW, 1995b), and the associated risk assessments, no current or future health risks or threats to groundwater were found at the IWTP Sludge Drying Beds, Pond 1, or Pond 3. Therefore, no remedial actions were required by the *ROD* and these sites are not further addressed in this document.

Remediation systems have been constructed at the following sites and consist of the following remedies:

- **Refueling Vehicle Maintenance Facility, Building 514:** installation of a soil vapor extraction (SVE) system; performance of long-term groundwater monitoring; establishment of an inspection, maintenance, and repair program for the building floor; and issuance of a continuing order from the Installation Commander to limit exposure to contaminated soil. This system has remediated the site and this site has been closed with no further action.
- **Sodium Hydroxide Tank Site:** construction of an asphalt cap; continued inspection, maintenance, and repair of the cap; performance of long-term groundwater monitoring; and implementation of institutional controls.
- **Berman Pond:** construction of a low-permeability asphalt cap; extraction of perched-water; continued inspection, maintenance, and repair of the cap; performance of long-term groundwater monitoring; and implementation of institutional controls.

Performance monitoring parameters are established for direct measurement of performance of the remedial actions in achieving the RAOs. The performance monitoring criteria include visual inspection of caps, measurement of groundwater elevations, analytical sampling of groundwater, and visual inspection of institutional and engineering controls.

The performance indicators, monitoring network, monitoring frequency, data evaluation, and anticipated timeframe for achieving the RAOs, have been identified for each of the remedial actions. These indicator criteria will be used to assess whether the treatment system is performing as anticipated. Exceedance of these criteria is not considered proof that the RAO is not being achieved. However, if these criteria are exceeded, a review will be conducted to determine if modification to the system operation is warranted. Remedial action closure criteria were also developed for each remedial action. An OU3 Annual Report will be prepared to summarize monitoring activities conducted during the preceding 12 months. The OU3 Annual Report will be made up of three subreports: the Treatment System Operation Report (TSOR); the Inspection, Monitoring, and Maintenance Report (IMMR); and the Annual Groundwater Sampling Report. The intent of the OU3 Annual Report will be to document the preceding year's monitoring results. The annual report will serve as a repository for the monitoring criteria result database (water level measurements, groundwater recovery volumes, water quality field measurements and analytical reports, total operation and maintenance [O&M] costs, etc.). The data documented in the annual reports will be interpreted in the PSVR. The PSVR process will thoroughly evaluate the performance of the OU3 system operation and progress toward RAOs. General evaluations regarding the effectiveness and efficiency of each remedial component of the selected remedy, as well as the cumulative effect of all components of the selected remedy, will be included in the PSVR report.